

**In the Specification**

Page 9, please replace the paragraph beginning at line 26 and ending on page 10 at line 32, with the following:

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The early reflection enhancement system of the invention may also be combined with a non-in-line assisted reverberation system for controlling the global reverberation time so that the reverberation time is similar for all source positions in the room, of the type described in US patent 5,862,233. Such a system comprises multiple microphones positioned to pick up predominantly reverberant sound in a room, multiple loud speakers to broadcast sound into the room, and a reverberation matrix connecting a similar bandwidth signal from each microphone through a reverberator having an impulse response consisting of a number of echoes the density of which increases over time, to a loudspeaker. The reverberation matrix may connect a similar bandwidth signal from each microphone through one or more reverberators to two or more separate loudspeakers and each of which receives a signal comprising one or more reverberated microphone signal. Figure 6 shows a wideband, N microphone, K loudspeaker non-in-line system. Each of microphones,  $m_1$ ,  $m_2$  and  $m_3$  picks up the reverberant sound in the auditorium. Each microphone signal is split into a number of K of separate paths, and each 'copy' of the microphone signal is transmitted through a reverberator, (the reverberators typically have a similar reverberation time but may have a different reverberation time). Each microphone signal is connected to each of K loudspeakers through the reverberators, with the output of one reverberator from each microphone being connected to each of the amplifiers  $A_1$  to  $A_3$  and to loudspeakers  $L_1$  to  $L_3$  as shown ie one reverberator signal from each microphone is connected to each loudspeaker and each loudspeaker has connected to it the signal from each microphone, through a reverberator. In total there are N.K connections between the microphone and the loudspeakers. While in Figure 6 each microphone signal is split into K separate paths through K reverberators resulting in N.K connections to K amplifiers and loudspeakers, the microphone signals could be split into less than K paths and coupled over less than K reverberators, ie each loudspeaker may have connected to it the signal

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from at least two microphones each through a reverberator, but be cross-linked with less than the total number if of microphones. For example, in the system of Figure 2 the reverberation matrix may split the signal from each of microphones  $m_1$ ,  $m_2$  and  $m_3$  to feed two reverberators instead of three, and the reverberator output from microphone  $m_i$  may then be connected to speakers  $L_1$  and  $L_3$ , from microphone  $m_2$  to speakers  $L_3$  and  $L_2$ , and from microphone  $m_3$  to speakers  $L_2$  and  $L_3$ . It can be shown that the system performance is governed by the minimum of  $N$  and  $K$ , and so systems of the invention where  $N=K$  are preferred. In Figure 6 each loudspeaker indicated by  $L_1$ ,  $L_2$  and  $L_3$  could in fact consist of a group of two or more loudspeakers positioned around an auditorium. In Figure 6 the signal from the microphones is split prior to the reverberators but the same system can be implemented by passing the supply from each microphone through a single reverberator per microphone and then splitting the reverberated microphone signal to the loudspeakers.

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Page 10, please replace the paragraph beginning at line 34 and ending on page 11 at line 2, with the following:

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The system simulates placing a secondary room in a feedback loop around the main auditorium with no ~~two~~ two-way acoustic coupling. The system allows the reverberation time in the room to be controlled independently of the steady state density by altering the apparent room volume.

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